

CLAIMS:

1. An electrophoretic display unit (1) comprising:
 - an electrophoretic display panel (DP) comprising lines with pixels (11);
 - a line driver (40) for driving the lines; and
 - a controller (20) for supplying a line driving signal having a timing parameter to the line driver (40), the controller (20) being adapted to vary the timing parameter for varying a frame rate of the electrophoretic display unit (1).
2. An electrophoretic display unit (1) as claimed in claim 1, wherein the timing parameter is formed by a delay of a start of the line driving signal.
3. An electrophoretic display unit (1) as claimed in claim 1, wherein the timing parameter is formed by a duration of a line driving signal of a line.
4. An electrophoretic display unit (1) as claimed in claim 1, wherein the timing parameter corresponds with a product of a predefined time-interval and a step value defined by a number of bits.
5. An electrophoretic display unit (1) as claimed in claim 1, wherein a line corresponds with a row.
6. An electrophoretic display unit (1) as claimed in claim 1, further comprising a memory coupled to or incorporated in the controller (20) for storing information about the timing parameter.
7. An electrophoretic display unit (1) as claimed in claim 6, wherein the information comprises row delay parameters, whereby the driving signal comprises a column driving signal and a row driving signal for providing:
 - shaking pulses (Sh), with a corresponding first row delay parameter defining a first row delay time;

- one or more reset pulses (R), with a corresponding second row delay parameter defining a second row delay time; and
 - one or more driving pulses (Dr), with a corresponding third row delay parameter defining a third row delay time; whereby the first row delay time is a fixed row delay time, with the first
5 row delay time being shorter than the second row delay time, and with the third row delay time being a flexible row delay time.
8. A display device comprising an electrophoretic display unit (1) as claimed in claim 1; and a storage medium for storing information to be displayed.
- 10
9. A method for driving an electrophoretic display unit (1) comprising an electrophoretic display panel (DP) comprising lines with pixels (11); the method comprising the steps of:
- varying a timing parameter of a line driving signal for varying a frame rate of the
15 electrophoretic display unit (1); and
 - driving the lines with the line driving signal.
10. A computer program product for driving an electrophoretic display unit (1) and comprising the functions of:
- 20
- in response to line driving signals, driving lines with pixels (11) of the electrophoretic display unit (1); and
 - supplying a line driving signal having a timing parameter, which timing parameter is adapted to be varied for varying a frame rate of the electrophoretic display unit (1).
- 25
11. A controller (20) for supplying a line driving signal having a timing parameter to a line driver (40) for driving lines with pixels (11) of an electrophoretic display panel (DP) of an electrophoretic display unit (1), the controller (20) being adapted to vary the timing parameter for varying a frame rate of the electrophoretic display unit (1).